

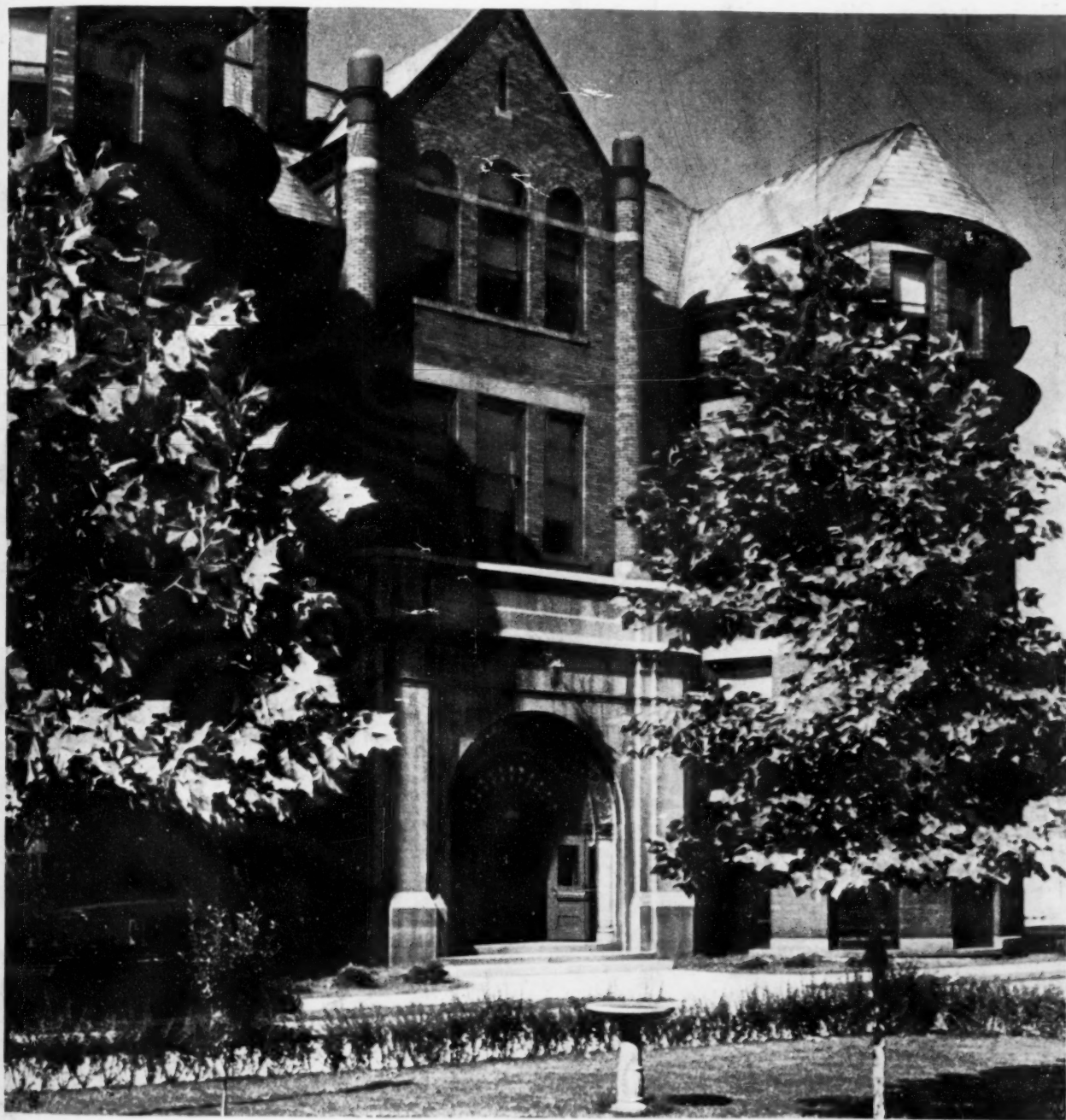
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THE SEPTEMBER COVER

In October members of the alumni will dedicate in Stalker Hall a plaque in memory to Francis Marion Stalker, for 37 years a member of the Indiana State Teachers College faculty and a former dean of the Department of Education. The plaque will contain Prof. Stalker's inspiring educational creed.

RALPH N. TIREY, President

J. E. GRINNELL, Editor

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A Comparison of Teachers' Salaries In Indiana With Those of Comparable Governmental Employees and Other Workers¹

J. R. Shannon

Indiana State Teachers College
Terre Haute, Indiana

SOME NOTABLE FACTS

1. The average salary of public-school teachers in Indiana is approximately the same as that for teachers of the United States as a whole.

2. Teachers in township schools of Indiana receive distinctly lower salaries than teachers in city or town schools of the state.

3. There are wide differences in teachers' salaries between different urban corporations and between different rural corporations of Indiana also.

4. The state of Indiana pays its institutional teachers more than most of the local school corporations of the state pay their teachers.

5. The average salary of all other governmental employees in America,

whether national, state, or local, is above that of teachers in Indiana.

6. United States mail carriers, both urban and rural, are in a luxury class in comparison with Indiana teachers. Also, city policemen and firemen, comparable public employees, receive considerably more than teachers. State police of Indiana likewise fare better financially than teachers.

7. The city of Terre Haute pays its "dead animal man" more than the median teacher of Indiana receives for teaching live children.

8. The state of Indiana pays men more to tend cows and chickens than most local school corporations pay teachers to tend children. Also, it pays more to chefs, garage mechanics, truck drivers, beauticians, housekeepers, telephone operators, laundry attendants, janitors, and firemen of furnaces.

9. State employees of Indiana on the merit system with qualifications equivalent to or higher than those of teachers are paid more than twice as much as teachers, on the average. Those with qualifications lower than teachers' receive about 50 per cent more than teachers.

10. Physicians, lawyers, engineers, dentists, and architects receive three to four times as much salary for their services as Indiana teachers. Even preachers, proverbially poor, receive considerably more. Most of these professional groups, furthermore, keep

increasing in earnings for thirty years (besides starting higher than teachers), but the beginning salary of teachers is not greatly less than the maximum ever attained. This is particularly true of rural teachers.

11. Skilled tradesmen, miners, factory workers, transportation and communication employees, electric and gas employees, wholesale and retail trade and finance employees all have larger annual incomes, on the average, than Indiana's teachers.

12. Only unskilled laborers and personal-service employees receive less annual income than teachers in the public schools of Indiana.

Once when asked how long a man's legs should be, Abraham Lincoln is reported to have answered that they should be long enough to reach the ground, indicating thereby that the desirable length of a man's legs is a relative matter. How much should a teacher's salary be? That, too, is a relative matter. In an effort to determine the appropriate amount of teachers' salaries, comparison should be made with the income of other workers, and particularly of other public employees whose relationship to government is essentially the same as that of teachers. Mail carriers, policemen, firemen, road employees, and State House clerks, for example, hold positions in relation to government corresponding to those of teachers. Then how do their salaries correspond? Also, teachers are people—workers, producers, consum-

¹This study was made as a part of the contribution of Indiana State Teachers College to the research program sponsored by The Indiana Council on Education. Acknowledgment for assistance in preparing this report is due to several helpers. For help in gathering data, the writer gratefully acknowledges the co-operation of Gertrude Allen, R. W. Bunch, Carabelle G. Dickey, Russell Grant, W. W. Howes, C. A. Ketchum, Virgil R. Mullins, Ambrose O'Connell, Lucile V. Payne, Don F. Stiver, Ordway Tead, and Ralph Tucker. For help in tabulating data, Maxine Shaw deserves acknowledgment. Orvel E. Strong computed many of the statistical measures. For the gracious co-operation and painstaking labor of these generous people, the writer is sincerely grateful.

ers—how does their income compare with that of other workers?²

RECENT HISTORY OF TEACHERS' SALARIES

Even before America's participation in World War I, protests were being raised that teachers' salaries were too low. Writing in 1916, Ellwood P. Cubberley³ said, "Carpenters, machinists, plumbers, lathers, plasterers, bricklayers, hod-carriers, enginemen, trainmen, motormen, clerks in city offices, policemen, firemen, chauffeurs, dressmakers, milliners, and nurses are paid better than are teachers, at the annual salaries usually paid, though the education and professional preparation required for such services, except in the case of nurses, is not comparable with that required of teachers." In 1915 the average salary of teachers, principals, and supervisors was only \$512,⁴ while that for ministers was \$899 and that for United States Government employees was \$1,156. Even the average annual wages of factory employees was \$578.⁵ Further statistics supporting Cubberley's allegation for the period preceding and during the war were presented by E.

²Capitalists, manufacturers, and other entrepreneurs are not considered here. We are interested only in wage and salary workers, although we know the income of the capitalist class to be much higher than that of workers. Furthermore, farmers are not considered. Their economic status, largely independent of the use of money, is not fairly comparable with wage or salary earners. In none of the comparisons are real wages considered. No recognition is given in this report to standards of living expected of teachers in comparison with other people. Also, no attention is given to sex.

³Ellwood P. Cubberley, *Public School Administration*, (Houghton Mifflin Company, 1916), p. 255.

⁴All measures of central tendency in this study are reported to the nearest whole dollar. If a measure ends with .50, it is reported as the next higher dollar.

⁵John K. Norton, "Teachers' Salaries Before the War," *Journal of the National Education Association*, Vol. 17, p. 27, January, 1928.

TABLE I
SALARIES OF ALL TEACHERS SINCE THE WORLD WAR*

School Years	Averages for the Nation	Averages for Indiana
1917-1918	\$ 635	\$ 587
1918-1919	755	776
1919-1920	871	964
1920-1921	1,020	1,114
1921-1922	1,166	1,265
1922-1923	1,197	1,343
1923-1924	1,227	1,422
1924-1925	1,252	1,392
1925-1926	1,277	1,361
1926-1927	1,321	1,396
1927-1928	1,364	1,450
1928-1929	1,392	1,448
1929-1930	1,420	1,466
1930-1931	1,419	1,482
1931-1932	1,417	1,497
1932-1933	1,522	1,512
1933-1934	1,227	1,127
1934-1935	1,255	1,211
1935-1936	1,285	1,294
1936-1937	1,520	1,175
1937-1938	1,560	1,224
1938-1939	1,580	1,261

*Data for 1917-1918 and alternate years thereafter through 1935-1936 were copied from the United States Office of Education, *Biennial Surveys of Education*, and those for intervening years were interpolated. National data for the next three years were copied from the *Research Bulletin* of the National Education Association, Vol. XVIII, No. 1, p. 22, 1940. Indiana data for the first two of these three years were taken from the *Year Books* of the state of Indiana. These two figures are medians, whereas all earlier ones are means, and for that reason, probably, are somewhat smaller. The Indiana figure for 1938-1939, also a median, is from *The Indiana Teacher*, Vol. 84, No. 6, p. 15, February, 1940. No published data are available for 1939-1940.

S. Evenden.⁶ Cubberley himself published figures for the palmy period following the war showing that the average annual income of all teachers and supervisors (\$1,275) ranked below that of trade union members (\$2,502), of high-grade

clerical workers (\$1,908), of United States Government employees (\$1,809), and of workers in twenty-five manufacturing industries (\$1,509).

The agitations by Cubberley and others bore fruit, and teachers' salaries rose from the time of World War I to the depression, but beginning with about 1932 they went down again. Reductions were general and often drastic. By the end of the decade of the '30's some salary restorations had been made, but even then the central tendency was only about the same as for a decade earlier. In general, the tendencies in teachers' salaries from the time of World War I to the end of the decade of the 1930's were to rise for more than a dozen years, then to fall backward from 1932 to 1934, and to gradually

⁶E. S. Evenden, *Teachers Salaries and Salary Schedules in the United States, 1918-1919*, Ch. IV. (National Education Association, 1919.) The *Journal of the National Education Association*, Vol. XVII, p. 115, (April, 1928) showed graphically that the average salary of teachers lagged from \$500 to \$900 behind that of non-teachers every year from 1915 to 1926.

⁷Ellwood P. Cubberley, *Public School Administration*, (Houghton Mifflin Company, 1929), p. 372. He obtained his data from *Research Bulletin* of the National Education Association, Vol. V, No. 3, May, 1927.

rise again since 1954. These tendencies for the United States as a whole and for Indiana are shown by the figures in Table I.

SALARIES IN 1939-1940

Since there were no published salary data for the school year of 1939-1940 at the time of this investigation, Indiana data were compiled by the investigator from the Annual School Report (September), Form 55-A, in the office of the Inspection Division of the Department of Education. In addition to the need for compiling these data firsthand because they were not available otherwise, there was a second reason for doing so: Data for individual counties and cities were needed, and such are never included in the state's published reports.

The enormousness of the task of compiling data for every school corporation in the state led the investigator to use a sampling method instead. Deciding to use the rural and urban corporations in one-third of the counties of the state, the investigator chose Adams County, the first in the alphabetical list of counties, and every third county in the list thereafter, thus getting data for thirty-one counties. This chance method gave a list of counties which was fairly representative of all Indiana, but it was too heavily loaded with poor southern counties, eighteen of the thirty-one being south of the northern boundary of Marion County. Also, the western counties in the thirty-one outnumbered the eastern ones. Therefore, five counties from northeastern Indiana, Blackford, Dekalb, Lagrange, Madison, and Randolph, were arbitrarily chosen to restore the balance, thus bringing the total to the thirty-six named in Table II.*

*A teacher teaching in both the elementary school and high school of a corporation was classified as a high-school teacher. No elementary principal was counted as a principal if there were not seven or more other elementary teachers in his building, and even then he was not counted as a principal if in a township school building which also housed a high school. Instead, he was classified as

TABLE II
SALARIES OF RURAL TEACHERS AND CERTAIN COUNTY OFFICIALS IN THIRTY-SIX REPRESENTATIVE COUNTIES OF INDIANA, 1939-1940

Counties	Median Salaries of Teachers*			Actual Salaries of Officials**	
	Elementary Teachers	High-School Teachers	Principals	County Superintendents	County Clerks and Sheriffs
Adams	\$ 908	\$1,105	\$1,488	\$1,720	\$1,840
Benton	1,089	1,375	2,025	1,560	1,520
†*Blackford	851	1,225	1,600	1,520	1,440
Brown	894	1,105	1,580	1,560	1,080
Clark	902	1,104	1,550	1,920	2,240
Crawford	895	1,097	1,580	1,440	1,280
Decatur	911	1,117	1,600	1,640	1,680
†*Dekalb	904	1,105	1,700	1,800	2,000
Dubois	895	1,095	1,580	1,680	1,760
Floyd	902	1,100	1,265	1,960	2,520
Fulton	887	1,101	1,600	1,600	1,600
Greene	885	1,099	1,500	1,960	2,520
Harrison	895	1,085	1,580	1,640	1,680
Howard	910	1,085	1,660	2,280	2,960
Jasper	910	1,150	1,750	1,600	1,600
Jennings	889	1,100	1,580	1,520	1,440
Kosciusko	916	1,195	1,920	1,880	2,160
†*Lagrange	925	1,181	1,600	1,560	1,520
LaPorte	1,020	1,267	1,998	2,600	3,600
†*Madison	1,050	1,250	1,622	2,880	4,640
Marion	1,049	1,578	1,800	2,880	4,800
Miami	927	1,145	1,400	1,920	2,240
Morgan	900	1,109	1,550	1,720	1,840
Ohio	900	...	...	1,120	960
Parke	905	1,180	1,800	1,640	1,680
Porter	1,104	1,560	1,845	1,800	2,000
Putman	895	1,112	1,400	1,760	1,920
†*Randolph	924	1,118	1,800	1,840	2,080
Rush	946	1,215	1,760	1,720	1,840
Spencer	900	1,098	1,500	1,600	1,600
St. Joseph	1,020	1,267	2,255	2,880	4,800
Tippecanoe	916	1,217	1,800	2,560	5,120
Vanderburgh	1,125	...	1,288	2,880	4,800
Wabash	952	1,171	1,700	1,840	2,080
Washington	892	1,090	1,580	1,600	1,600
White	910	1,186	1,600	1,640	1,680
Median of individuals	921	1,177	1,659	1,720	1,840
Median of counties	909	1,118	1,600	1,700	1,840
Number of cases	2,480	1,490	255	36	36 each

*Data compiled from reports in the files of the State Department of Education, Division of School Inspection.

**Data compiled from *Burns Indiana Statutes*, 1935, Vol. 10, pp. 49-65. The salaries for clerks and sheriffs do not include fees.

†*Counties arbitrarily chosen to restore the balance after having too many poor counties from southern Indiana by the random selection of every third county in the alphabetical list.

While tabulating the data for teachers in the township corporations of the thirty-six counties, it was a simple matter to add the salaries of county superintendents and other county officials, although this report in general is not concerned with public officials but with public employees. Salaries of only two political officials besides the county superintendent were chosen for the comparisons in Table II, those being the clerk of the court and the sheriff. These two were selected because their salaries were the same in every county and were about midway between the top and bottom of county officials in their legally-fixed salaries.

It will be observed in the table that the median elementary teacher's salary (\$921) was considerably under a thousand dollars, and that the median elementary teacher's salary in the median county (\$909) was still less. The high-school teachers' salaries (\$1,177) amounted to less than the equivalent of one hundred dollars a month throughout the year. Neither principals (\$1,639) nor county superintendents (\$1,720) got as much as county clerks or sheriffs (\$1,840), a fact legislators should remember when they feel tempted to cut teachers' salaries.

The salary schedules in the cities and towns of the thirty-six counties were considerably higher than in the townships. They showed a wider range among themselves, however, as can readily be seen (Table III) in the case of elementary teachers, whose median salary in Indianapolis was \$1,931 and in English was only \$825.

a teacher. Therefore, nearly all principals included in Table II were high-school principals. The distinction between elementary and high school depended on whether a school's organization was eight-four or six-six.

TABLE III
SALARIES OF TEACHERS IN THE CITIES AND TOWNS OF
THIRTY-SIX REPRESENTATIVE COUNTIES OF
INDIANA, 1939-1940*

Cities and Towns	Actual or Median Salaries**				
	Elementary Teachers	High-School Teachers	Elementary Principals	High-School Principals	Superintendents
Indianapolis	\$1,931	\$2,269	\$2,947	\$5,200	\$10,000
Evansville	1,815	2,255	4,150	4,600	7,500
South Bend	1,804	2,200	2,825	5,325	8,500
Anderson	1,700	1,921	2,592	2,515	6,000
LaPorte	1,695	1,954	2,595	5,665	4,200
Peru	1,669	1,891	2,041	2,500	5,000
Michigan City	1,597	1,897	2,145	5,550	5,700
Lafayette	1,592	2,000	2,200	....	6,600
Mishawaka	1,520	1,909	2,244	5,800	5,500
Speedway	1,457	1,588	....	....	2,400
Valparaiso	1,599	1,786	1,755	2,415	4,200
Kokomo	1,548	1,890	2,125	4,000	6,000
Decatur	1,546	1,515	2,125	2,750	5,400
North Manchester	1,515	1,400	....	2,079	2,599
Wabash	1,500	1,570	....	2,518	4,000
Elwood	1,200	1,529	1,550	1,855	5,326
Jeffersonville	1,196	1,586	1,465	2,400	5,500
Warsaw	1,188	1,412	....	2,525	5,500
Rochester	1,167	1,506	1,812	2,569	2,754
Monticello	1,167	1,581	....	2,200	2,800
Lagrange	1,150	1,575	....	1,550	2,640
Union City	1,141	1,541	....	1,700	5,000
Hartford City	1,158	1,517	1,558	2,525	5,550
Auburn	1,155	1,555	....	2,457	5,800
West Lafayette	1,117	1,425	2,200	2,400	5,600
Martinsville	1,115	1,457	1,452	2,206	5,200
Berne	1,115	1,415	....	1,575	2,400
Rushville	1,112	1,469	....	2,600	5,750
Greencastle	1,106	1,592	....	2,450	5,200
Clarksville	1,104	....	....	....	....
Garrett	1,100	1,469	1,550	2,400	4,000
Alexandria	1,100	1,570	....	2,400	5,000
North Vernon	1,098	1,269	1,260	1,620	2,655
Greensburg	1,097	1,489	1,505	2,500	2,800
Linton	1,095	1,525	....	2,200	2,400
Rockville	1,088	1,550	1,550	1,755	2,700
Montpelier	1,087	1,525	1,514	1,750	2,400
Rockport	1,085	1,250	....	....	2,400
Winchester	1,079	1,558	....	2,200	5,000
Rensselaer	1,069	1,561	1,400	2,200	2,945
Pendleton	1,069	1,525	1,505	2,050	5,165
Jasper	1,046	1,545	....	2,200	2,850
New Albany	1,042	1,558	1,505	1,850	5,600
Butler	1,042	1,275	....	....	2,850
Salem	1,025	1,567	1,500	1,850	2,280
Huntingburg	1,025	1,250	1,440	1,900	2,500
Beech Grove	1,017	1,217	....	2,400	5,000
Waterloo	975	1,292	....	2,000	2,500
Rising Sun	950	1,192	....	1,250	2,000
Corydon	925	1,115	1,597	1,515	2,217
Milltown	925	1,100	....	1,100	1,750
Mooresville	920	1,125	1,500	1,500	2,101
Amboy	915	1,200	....	....	1,600
Jasonville	909	1,075	1,160	1,580	1,450
Worthington	900	1,125	....	....	....
Bloomfield	900	1,100	....	....	2,000
Converse	900	1,100	....	1,450	1,700
Vernon	900	1,094	....	....	1,500

Campellsburg	888	1,125	....	....	2,100
Pekin	888	1,050	....	....	1,640
Marengo	850	1,100	....	....	1,580
English	825	1,100	....	1,080	1,550
Median of individuals	1,620	1,756	2,759	2,525	2,898
Median of corporations	1,100	1,570	1,550	2,228	2,898
Number of cases	3,070	2,656	149	95	60

*Data compiled from reports in the files of the State Department of Education, Division of School Inspection. Joint city and township or joint town and township schools are listed with only the name of the city or town.

**When there is only one principal of either type in a corporation, the figure in the table is the actual salary of that one. The figure for the superintendent in each instance is the actual salary. All other figures are medians. Junior high-school teachers and principals are grouped with high-school ones. Vice-principals are included with principals. An elementary principal is not considered as a principal unless there are as many as seven other teachers in the building.

TABLE IV
AVERAGE SALARIES OF POLICEMEN, FIREMEN, AND MAIL CARRIERS IN THE UNITED STATES

Classifications of Service	Salaries
CITY POLICEMEN*	
Superintendents (the highest paid).....	\$5,107
Police matrons (the lowest paid).....	1,295
Patrolmen (the largest group).....	2,175
CITY FIREMEN***	
Chiefs (the highest paid).....	5,025
Telephone operators (the lowest paid).....	1,587
Privates (the largest group).....	1,975
MAIL CARRIERS†	
City delivery carriers	2,081
Rural delivery carriers.....	2,052

*G. H. Loudenslager and H. O. Rogers, "Salaries and Working Conditions in Police Departments, 1954," *Monthly Labor Review*, Vol. 41, pp. 857-864. U. S. Bureau of Labor Statistics, October, 1955. Salaries of policemen in Logansport and Terre Haute, Indiana, in 1940 were somewhat smaller than these national ones. The city clerks in the two Hoosier cities reported \$1,680 and \$1,800, respectively, for patrolmen.

**G. H. Loudenslager and H. O. Rogers, "Salaries and Working Conditions of Fire-Department Employees, 1954," *Monthly Labor Review*, Vol. 41, pp. 1159-1165, U. S. Bureau of Labor Statistics, November, 1955. Logansport and Terre Haute paid less in 1940 for firemen also. The figures were \$1,620 and \$1,800, respectively.

†Figures given in letters signed by W. W. Howes, First Assistant Postmaster General, and Ambrose O'Connell, Second Assistant Postmaster General.

SALARIES OF COMPARABLE PUBLIC EMPLOYEES

Of all public employees besides teachers, perhaps mail delivery carriers and city policemen and firemen are closer to the people and also are more nearly comparable to public-school teachers in their relationships to government. Up-to-date figures of salaries of mail delivery carriers have been supplied by the First Assistant and Second Assistant Postmaster General, and salaries for city policemen and firemen for 1934 are available in published sources. These data are shown in Table IV.

Whereas city police patrolmen and fire-department privates in 1934 were paid averages of \$2,175 and \$1,975, respectively, America's teachers at the same time were paid on the average but \$1,227, and Indiana's but \$1,127. It seems that the American public and the Hoosier public esteemed their policemen and firemen much more highly in 1934 than their teachers. They paid them almost twice as much. Mail delivery carriers in 1940 were paid amounts similar to those just noticed for policemen and firemen (\$2,081 and \$2,052). No group of rural teachers or school administrators in Indiana in 1939-1940 received a median salary so high as their fellow citizens who delivered their mail. Neither did any group of city teachers. Only city school principals (\$2,759 and \$2,525) and superintendents (\$2,898) of Indiana were better paid than letter carriers or policemen. But these administrators should not be compared with privates in the ranks of police, fire, and mail service, they should be compared with the administrative officials of such functions of government. When they are, it is again evident that the public esteems its police and fire administrators more than its school administrators. Police superintendents and fire chiefs in 1934 were paid more than \$5,000, on the average, while the median salary for no type of Indiana school principal in 1939-1940 came within several hundred dollars of such amount, and the median for Indiana's city and

town superintendents was more than one hundred dollars less.

Salaries of patrolmen of the Indiana State Police were less in 1939 than those of city police patrolmen of America in 1934 (Table V). Nevertheless, they were higher their first year (\$1,200) than the median for either elementary or high-school teachers in the township corporations of Indiana at the same time (\$921 and \$1,177), and for their third year (\$1,620) were about the same as the median for city teachers (\$1,629 and \$1,736). City school administrators and county superintendents (\$1,720 to \$2,898) were the only groups of public-school employees of Indiana in 1939-1940 who were more highly paid than patrolmen of the state police with two years' experience (\$1,620), and the median salaries of these school officials were less than the salaries of the administrative officers of the state police (\$1,800 to \$3,600).

TABLE V
SALARIES OF INDIANA STATE POLICE, 1939*

Classifications of Service	Salaries
Captain	\$3,600
Supervising lieutenants ..	3,000
Lieutenants	2,400
Sergeants	2,100
Detectives	2,100
Corporals	1,800
Technicians	1,680
Patrolmen	
Third year	1,620
Second year	1,500
First year	1,200

*Data supplied orally by Don F. Stiver, Superintendent of Indiana State Police.

State highway employees in Indiana received less remuneration than state police in 1939 (Table VI). Nevertheless, the most lowly group of highway employees, common laborers, did not need to blush in the presence of a Hoosier elementary-school teacher. Common laborers on the rural highways received more than rural elementary teachers (\$942 vs. \$921), and common laborers on highways in the urban areas received more than the median ele-

mentary teacher in the median urban school corporation (\$1,188 vs. \$1,100).

Many interesting comparisons can be made by analyzing the salary range of full-time state officials and employees of Indiana. These are arranged in Table VII in descending order of the minimum salary for Class A of each type of service. Accepting \$1,261 as the median salary for all public-school teachers of Indiana, \$921 as the median for township elementary teachers, \$1,177 as the median for township high-school teachers, \$1,629 as the median for city and town elementary teachers, and \$1,736 as the median for city and town high-school teachers, the com-

parisons with the data in Table VII will make teachers' salaries look sufficiently small. But if we use the salaries paid by the median township and city or town school corporations of the state, the comparisons with data in Table VII will make teachers' salaries look still worse. Some of the following examples may be significant: Guards are paid more to watch prisoners than teachers are to lead out children—guards are paid more to keep people in prison than teachers are to keep them out; nurses and dieticians get more for nursing the ill than teachers get for educating the well; clerks and stenographers doing routine work fare better than teachers doing creative work; dairy-

TABLE VI
SALARIES AND WAGES OF CERTIFIED EMPLOYEES OF THE INDIANA STATE HIGHWAY COMMISSION, 1939*

Classifications of Service	Income
ROAD CONSTRUCTION	
Various types of engineers (average)	\$2,372
Assistant engineers	1,920
Inspectors	1,487
ROAD MAINTENANCE	
Superintendents	2,100
Gargare foremen or mechanics	
Urban	1,620
Rural	1,512
Clerks	1,450
Blacksmiths (average)	1,404
Road foremen	
Urban	1,404
Rural	1,296
Patrolmen (supervisors and foremen of machine operators)	
Urban	1,404
Rural	1,296
Paint foremen	
Urban	1,296
Rural	1,188
Truck drivers	
Urban	1,296
Rural	1,080
Common laborers	
Urban	1,188
Rural	972
INDIANAPOLIS OFFICE FORCE	
Engineers	2,040
Administrators	1,800
Clerical workers	1,440

*Compiled from data supplied orally by Russell Grant, Personnel Director, State Highway Commission. The averages for the Indianapolis office force are estimates by Mr. Grant. The figures for maintenance employees include overtime, and the amount of overtime each year was estimated by Mr. Grant.

TABLE VII

SALARY RANGE OF FULL-TIME STATE OFFICIALS AND EMPLOYEES OF INDIANA, 1939*

Type of Service	Salary Range
Attorney	
Class A	\$7,500
Class B	5,000-6,000
Class C	5,000-4,800
Class D	1,200-2,900
Administrative officer	
Class A	5,000-7,500
Class B	4,000-6,000
Class C	2,500-4,000
Educational officer	
Class A	\$5,000
Class B	5,900-4,200
Class C	5,000-5,600
Class D	2,400-2,880
Class E	1,800-2,540
Engineer	
Class A	4,800-6,000
Class B	5,600-4,500
Class C	2,700-5,500
Class D	2,100-2,700
Class E	1,200-2,040
Class F	900-1,140
Physician, dentist, pharmacist	
Class A	4,200-5,400
Class B	5,500-4,000
Class C	1,860-5,000
Utility and vaulting engineer	
Chief engineer	4,200-5,200
Assistant chief engineer	5,500-5,900
Senior engineer	2,700-5,000
Junior engineer	1,800-2,400
Librarian	
Class A	4,000-5,200
Class B	2,100-2,760
Class C	1,500-2,040
Institution superintendent	
Class A	4,000-4,500
Class B	2,500-5,600
Class C	2,000-2,500
Executive secretary	
Class A	5,600-4,800
Class B	2,100-5,540
Auditor	
Class A	5,000-5,600
Class B	2,400-2,820
Class C	1,800-2,280
Accountant	
Class A	5,000-5,600
Class B	2,400-2,820
Class C	1,800-2,280

Rate expert	
Class A	5,000-5,600
Class B	2,400-2,880
Police, guard, watchman	
Class A	5,000-5,600
Class B	1,800-2,700
Class C	1,520-1,740
Class D	900-1,260
Field scientist	
Class A	5,000-5,500
Class B	2,400-2,700
Class C	1,800-2,100
Industrial supervisor	
Class A	5,000-5,500
Class B	2,100-2,700
Class C	1,500-2,040
Class D	960-1,440
Clerk	
Class A	2,710-5,250
Class B	1,800-2,650
Class C	1,580-1,740
Class D	960-1,520
Examiner	
Class A	2,700-5,600
Class B	2,100-2,640
Class C	1,200-2,040
Statistician	
Class A	2,700-5,000
Class B	1,500-2,400
Personnel director	
Class A	2,700-5,000
Agricultural co-ordinator	
Class A	2,700-5,000
Actuary	
Class A	2,500-4,500
Investigator	
Class A	2,460-5,000
Class B	1,560-2,400
Class C	900-1,500
Psychologist	
Class A	2,400-5,000
Class B	1,500-2,100
Sales agent, land agent, editor	
Class A	2,400-5,000
Class B	1,200-2,000**
Nurse and dietician	
Class A	2,400-2,700
Class B	1,560-2,100
Class C	1,140-1,500
Laboratory scientist	
Class A	2,400-2,700
Class B	1,800-2,100
Class C	1,500-1,740
Class D	1,040-1,440

Inspector	
Class A	2,160-2,700
Class B	1,620-2,100
Class C	960-1,560
Property custodian	
Class A	2,100-2,700
Class B	1,500-1,800
Class C	900-1,580
Maintenance and stationary engineer	
Class A	2,100-2,700
Class B	1,200-1,980
Class C	840-1,080
Cashier-teller	
Class A	1,860-2,400
Class B	1,580-1,800
Class C	1,200-1,520
Institutional teacher (All on 9-months basis. Salaries for longer periods adjusted accordingly.)	
Class A	1,800-2,700
Class B	1,485-1,755
Class C	1,170-1,440
Class D	900-1,125
Social investigator	
Class A	1,800-2,400
Class B	1,500-1,760
Class C	1,080-1,440
Radio technician	
Class A	1,800-2,100
Class B	1,200-1,500
Stenographer	
Class A	1,800-2,100
Class B	1,500-1,620
Class C	1,260-1,440
Class D	1,080-1,200
Class E	900-1,080
Head farmer	
Class A	1,750-2,100
Class B	1,200-1,740
Class C	780-1,080
Stenographer-secretary	
Class A	1,740-1,800
Class B	1,500-1,680
Class C	1,320-1,440
Photographer and identification man	
Class A	1,560-2,100
Class B	950-1,500
Bookkeeper	
Class A	1,500-2,160
Class B	1,080-1,440
Machine operator	
Class A	1,500-1,920
Class B	1,140-1,440
Class C	900-1,080

Chef	
Class A	1,500-1,800
Class B	1,040-1,440
Carpenter	
Class A	1,500-1,800
Class B	1,200-1,500
Class C	1,140-1,440
Class D	840-1,080
Garage mechanic	
Class A	1,500-1,800
Class B	1,080-1,520
Class C	780-1,020
Bookbinder	1,580-1,500
Brick mason	
Class A	1,520-1,800
Class B	960-1,200
Class C	720- 840
Dairyman	
Class A	1,520-1,620
Class B	840-1,200
Truck driver	
Class A	1,520-1,500
Class B	900-1,200
Plumber	
Class A	1,260-1,800
Class B	1,080-1,200
Class C	780-1,020
Painter	
Class A	1,260-1,800
Class B	960-1,200
Class C	720- 900
Electrician	
Class A	1,200-1,800
Class B	840-1,080
Class C	600- 720
Tinner	
Class A	1,200-1,680
Class B	840-1,080
Horticulturist and gardener	
Class A	1,200-1,560
Class B	1,020-1,140
Class C	780- 960
Machinist	
Class A	1,200-1,500
Mechanic	
Class A	1,200-1,500
Class B	840-1,080
Blacksmith	
Class A	1,200-1,500
Class B	840-1,080
Florist	
Class A	1,200-1,500
Class B	660-1,080

Baker	
Class A	1,200-1,500
Class B	840-1,140
Canner	1,200-1,500
Locomotive engineer	1,200-1,580
Sawyer	1,200-1,580
Fireman of furnace	
Class A	1,200-1,520
Class B	900-1,140
Class C	720- 840
Cabinet-maker	1,140-1,440
Poultryman	
Class A	1,140-1,410
Class B	840-1,080
Supervisor and governess	
Class A	1,140-1,400
Class B	600-1,080
Laundry attendants	
Class A	1,140-1,520
Class B	600- 900
Typist	
Class A	1,140-1,200
Class B	900-1,080
Printer	1,080-1,800
Steamfitter	1,080-1,800
Sanitary and fire chief	1,080-1,500
Meat cutter	
Class A	1,080-1,520
Class B	780-1,020
Tailor	1,020-1,500
Housekeeper	
Class A	1,020-1,520
Class B	780- 960
Upholsterer	
Class A	960-1,200
Class B	600- 840
Seamstress-tailoress	
Class A	960-1,080
Stockman	
Class A	840-1,580
Class B	600- 780
Dining room attendant	
Class A	840-1,140
Class B	660- 780
Chauffeur	840-1,080
Hospital attendant	
Class A	840-1,020
Class B	720- 780

Common laborer	
Class A	840- 900
Class B	600- 780
Cook and kitchen attendant	
Class A	780-1,080
Class B	600- 780
Janitor	
Class A	780- 960
Class B	600- 720
Usher	780- 900
House maid	
Class A	780- 840
Class B	600- 720
Shoemaker	720-1,200
Beautician	600-1,200
Barber	600-1,200
Median minimum for (Class A	1,580

*Data arranged from an unnamed hectographed bulletin supplied by C. A. Ketchum, Director of Budget. The descriptions of the various services seldom indicate the educational qualifications. The nature of the duties of each type of service is described in the bulletin. The employees included in these services evidently are not chosen on a merit basis.

**Plus commission.

men and poultrymen would lose financially if they learned a little more psychology and began giving children the attention and care they now bestow on cows and chickens. Of the eighty-five types of service listed in the table, only thirty-nine have minimum salaries for Class A which are less than the \$1,261 median for all Indiana teachers, and only fourteen have maximum salaries below that figure. None of the thirty-nine are professional service, and fewer than twenty even require skilled tradesmen. Only twelve of the eighty-five types of service have minimum salaries for Class A lower than the median of \$921 for rural elementary teachers. The median minimum for all Class A services is \$1,580, which is more than one hundred dol-

lars above the median for all of Indiana's public-school teachers and administrators.

Perhaps the most significant comparisons which should be made of teachers' salaries with those of employees of the state government in Indiana are those with employees in the Department of Public Welfare and the Unemployment Compensation Division of the Department of Treasury, because such state employees are on a merit basis, and their qualifications are so specified that they can be compared with those of teachers. Also, the nature of their work is something like that of teachers. The salary ranges of these merit-system employees are shown in Table VIII. The employees are grouped into three divisions, those with qualifications higher than teachers', those with qualifications about the same as teachers', and those with qualifications lower than teachers'. Under each heading the types of service are listed in descending order of salary.

It should be noted that none of the types of service of employees with qualifications higher than teachers' have minimum salaries so low as the median of all of Indiana's teachers. Table VIII are summarized in Table or so low as that of any group of its teachers who are not administrators. Only one type of service with qualifications equivalent to those of teachers has a minimum salary lower than the median for all teachers. Only twelve, or 25 per cent, of the types of service with qualifications lower than teachers' have minimum salaries lower than the median for Indiana's teachers.

The salary distributions shown in IX. Table IX makes the humble financial status of Indiana's teachers all the more vivid. The median salaries of the merit-system state employees with qualifications equivalent to and greater than teachers is \$2,670, or more than twice that of teachers. The median salary for those with qualifications lower than teachers' is \$1,725, or approximately the same as the median for Indiana's most prosperous group of classroom

TABLE VIII
SALARY RANGE FOR VARIOUS TYPES OF FULL-TIME
EMPLOYMENT IN THE DEPARTMENT OF PUBLIC
WELFARE AND THE UNEMPLOYMENT COMPEN-
SATION DIVISION OF THE DEPARTMENT OF
TREASURY OF INDIANA IN 1939*

Classifications	Salary Range
WITH QUALIFICATIONS HIGHER THAN TEACHERS'	
Director, division of medical care	\$4,000-\$5,400
Director, services to crippled children	4,000- 5,400
Consultant in medical administration and psychiatry	5,600- 4,500
Supervisor of institutional classification, education, and welfare	5,000- 3,900
Senior clinical psychiatrist	2,700- 3,600
Senior clinical psychologist	2,400- 2,940
Institutional supervisor of classification	2,400- 2,940
Consultant in nursing and hydrotherapy	2,100- 2,700
Junior clinical psychiatrist	2,100- 2,700
Junior clinical psychologist	1,800- 2,340
Institutional welfare worker	1,800- 2,340
WITH QUALIFICATIONS ABOUT THE SAME AS TEACHERS'	
Assistant administrator	4,000- 5,400
Director, division of child welfare	4,000- 5,400
Director, division of corrections	4,000- 5,400
Director, division of general welfare	4,000- 5,400
Director, division of information and public relations	4,000- 5,400
Director, division of public assistance	4,000- 5,400
Director, employment service	4,000- 5,400
Director of personnel	4,000- 5,400
Chief attorney	5,600- 4,800
Chief personnel examiner	5,600- 4,500
Assistant chief attorney	5,600- 4,200
Supervising accountant	5,600- 4,140
Assistant to administrator	5,000- 3,900
Assistant director, division of public assistance	5,000- 3,900
Assistant director, employment service	5,000- 3,900
Supervisor, information service	5,000- 3,900
Supervisor of paroles	5,000- 3,900
Appeals examiner	5,000- 3,600
Principal accountant	5,000- 3,540
Principal attorney	5,000- 3,540
Principal personnel examiner	5,000- 3,540
Principal statistician	5,000- 3,540
Supervisor, child welfare services	5,000- 3,540
Clearance supervisor, employment service	5,000- 3,540
Field supervisor, employment service	5,000- 3,540
County finance adviser	2,400- 3,600
Administrative assistant	2,400- 3,500
Senior accountant	2,400- 2,940
Senior attorney	2,400- 2,940
Senior personnel examiner	2,400- 2,940
Senior inspector	2,400- 2,940
Senior statistician	2,400- 2,940
Child welfare consultant	2,400- 2,940
Medical social work consultant	2,400- 2,940
Psychiatric social work consultant	2,400- 2,940
Principal editor	2,400- 2,940
Principal child welfare worker	2,400- 2,940
Supervisor of field workers	2,400- 2,940
Supervisor of in-service training, unemployment compensation	2,400- 2,940
Supervisor of social service	2,400- 2,940
Public assistance consultant	2,100- 2,700
Field representative	2,100- 2,700
Supervisor of nursing, division of services to crippled children	2,100- 2,700
District representative	1,800- 2,700

Supervisor, assistance to the aged	1,800- 2,700
Supervisor, assistance to the blind	1,800- 2,700
Supervisor, assistance to dependent children	1,800- 2,700
Junior accountant	1,800- 2,540
Junior attorney	1,800- 2,540
Junior personnel examiner	1,800- 2,540
Junior statistician	1,800- 2,540
Deportation agent	1,800- 2,540
Senior editor	1,800- 2,540
Inspector	1,800- 2,540
District parole officer	1,800- 2,540
State women's parole officer	1,800- 2,540
Speech pathologist	1,800- 2,540
Occupational therapist	1,800- 2,540
Physical therapist	1,800- 2,540
Child welfare worker	1,800- 2,540
Field worker	1,800- 2,540
Medical social worker	1,800- 2,540
Psychiatric social worker	1,800- 2,540
Inspector, interstate correspondence	1,620- 2,100
Office librarian	1,500- 2,100
Welfare extension agent	1,500- 2,100
Junior medical social worker	1,500- 1,740
Case reviewer	1,200- 1,740
Assistant office librarian	1,140- 1,440

WITH QUALIFICATIONS LOWER THAN TEACHERS'

Controller	4,000- 5,400
Supervising deputy manager	3,600- 4,500
Principal unemployment compensation adviser	3,000- 3,540
District manager, employment office	3,000- 3,540
District deputy manager	3,000- 3,540
Assistant supervising deputy manager	3,000- 3,540
Senior unemployment compensation adviser	2,400- 2,940
Rehabilitation placement agent	2,400- 2,940
Manager, employment service	2,400- 2,940
Deputy manager	2,400- 2,940
State nutritionist	2,100- 2,700
Junior unemployment compensation adviser	1,800- 2,540
Senior cashier	1,800- 2,540
Senior interviewer	1,800- 2,540
Supervising clerk	1,800- 2,540
Supervising tabulating machine operator	1,800- 2,540
Assistant deputy manager	1,800- 2,540
Assistant manager, employment service	1,800- 2,540
Orthopedic nurse	1,800- 2,540
Claims reporter	1,800- 2,540
Principal account clerk	1,680- 1,980
Clerk secretary	1,620- 1,800
Exhibits technician	1,500- 2,100
Medical record librarian	1,500- 2,100
Senior statistical draftsman	1,500- 1,800
Junior editor	1,500- 1,740
Junior cashier	1,500- 1,740
Senior clerk	1,440- 1,740
Senior tabulating machine operator	1,440- 1,740
Storekeeper	1,440- 1,740
Junior interviewer	1,380- 1,740
Senior account clerk	1,380- 1,620
Senior file clerk	1,380- 1,620
Senior duplicating machine operator	1,380- 1,620
Senior clerk stenographer	1,380- 1,560
Senior clerk typist	1,380- 1,560
Bookkeeping machine operator	1,140- 1,440
Calculating machine operator	1,140- 1,440
Junior duplicating machine operator	1,140- 1,440
Junior statistical draftsman	1,140- 1,440

teachers, its city and town high-school teachers (\$1,736), and nearly half again as much as the median for its teachers as a whole.

SALARIES OF OTHER WORKERS

The protests and statistics from such writers as Cubberley and Evenden, referred to near the beginning of this report, considered not so much the income of public employees as that of other groups of non-teachers. It is common knowledge that other professional workers, such as physicians, lawyers, dentists, and engineers, are more prosperous than teachers. Also, manual laborers of the higher classes, as railroaders and skilled tradesmen, usually are recognized as economically more fortunate than teachers. Even factory laborers sometimes are alleged to be. What are the facts? Purely up-to-date statistics are difficult to obtain on any complex problem, but we are fortunate in having very satisfactory data which cover per capita income of various groups of industrial employees for 1937. These are reproduced in Table X.

According to the figures in this table, no major group of employees except service employees ranks so low as employees in public education, and no subdivisions under these major groups except seven rank so low besides some in the service group. Indiana's median salary for public-school teachers and administrators of all grades in 1936-1937 was \$1,175, and only four of the thirty-three subgroups in Table X outside of the service employees are so low. Not any subgroup outside of service employees falls so low as \$921, the median for rural elementary teachers of Indiana in 1939-1940, and only one subgroup among the service employees, that of domestic servants, does so. Surely, in light of these comparisons, Indiana teachers are not being paid too much. They are being paid disproportionately, it is true, but disproportionately low.

Salary data for eleven professional groups besides teachers, and for skilled and unskilled laborers, are shown in Table XI. No one will be surprised, perhaps, to see public-

school teachers ranking low in the table. This table has further value in the fact that it represents averages over a period of years, a characteristic which no other table in this report has. The relative income of a variety of workers might fluctuate from year to year, but the tendencies shown in Table XI represent conditions which are relatively stable.

Physicians, lawyers, engineers, dentists, and architects are shown in Table XI as being much more affluent than any of the other professional workers. The earning power of all of these affluent groups except dentists continues increasing for thirty years after the beginning of one's professional activity, while that for teachers, lower in the beginning than for these others, is not greatly improved over such a period of years. This failure of teachers' salaries to improve adequately with continued experience is particularly marked for rural teachers.⁹

SUMMARY

Teachers' salaries, in comparison with those of other governmental employees and of other workers, are disproportionately low. They appear particularly low in Indiana when compared with salaries of state employees who are on a merit system, whose qualifications in comparison with teachers' are known, and whose duties are somewhat similar to teachers'. The major features of this com-

⁹Harold F. Clark, *Life Earnings in Selected Occupations in the United States*, (Harper and Brothers, 1937), p. 9. This same fact with reference to Indiana teachers has been pointed out by two Indiana teachers. One is Joe Kirkham (*A Comparative Study of the Salaries of High-School Teachers of Indiana*, p. 8, thesis at Indiana State Teachers College, 1935). The other is Donald L. Simon ("Qualifications and Salaries of Teachers in Smaller Schools," *American School Board Journal*, July, 1937, pp. 40, 78-79).

Key punch operator	1,140- 1,580
Junior tabulating machine operator	1,140- 1,580
Junior account clerk	1,140- 1,520
Junior clerk stenographer	1,020- 1,520
Telephone operator	1,020- 1,520
Janitor	1,020- 1,200
Junior clerk	900- 1,580
Junior clerk typist	900- 1,520

*Compiled from *The Personnel Plan*, mimeographed bulletin of the Bureau of Personnel for the Department of Public Welfare and the Unemployment Compensation Division of the Department of Treasury of the State of Indiana, October, 1939. Approximately twelve hundred people are included in the classifications.

TABLE IX
DISTRIBUTION OF SALARIES IN THE DEPARTMENT OF
PUBLIC WELFARE AND THE UNEMPLOYMENT COMPEN-
SATION DIVISION OF THE DEPARTMENT OF
TREASURY OF INDIANA IN 1939*

Salary Ranges	Frequencies of Types of Positions			Total
	With Quali- fications Higher Than Teachers'	With Quali- fications about the Same as Teachers'	With Quali- fications Lower Than Teachers'	
\$4,000- \$5,400	2	8	1	11
5,600- 4,800	..	1	..	1
5,600- 4,500	1	1	1	3
5,600- 4,200	..	1	..	1
5,600- 4,140	..	1	..	1
5,000- 5,900	1	5	..	6
5,000- 5,600	..	1	..	1
5,000- 5,540	..	7	4	11
2,700- 5,600	1	..	..	1
2,400- 5,600	..	1	..	1
2,400- 5,500	..	1	..	1
2,400- 2,940	2	15	4	19
2,100- 2,700	2	5	1	6
1,800- 2,700	..	4	..	4
1,800- 2,540	2	16	9	27
1,680- 1,980	..	..	1	1
1,620- 2,100	..	1	..	1
1,620- 1,800	..	..	1	1
1,500- 2,100	..	2	2	4
1,500- 1,800	..	..	1	1
1,500- 1,740	..	1	2	3
1,440- 1,740	..	..	5	5
1,580- 1,740	..	..	1	1
1,580- 1,620	..	..	5	5
1,580- 1,560	..	..	2	2
1,200- 1,740	..	1	..	1
1,140- 1,440	..	1	4	5
1,140- 1,580	..	..	2	2
1,140- 1,520	..	..	1	1

1,020- 1,520	..	..	2	2
1,020- 1,200	..	..	1	1
900- 1,580	..	..	1	1
900- 1,520	..	..	1	1
Total	11	69	48	128
Median	2,670	2,670	1,725	2,250

*Compiled from *The Personnel Plan*, mimeographed bulletin of the Bureau of Personnel for the Department of Public Welfare and the Unemployment Compensation Division of the Department of Treasury of the State of Indiana, October, 1939. Approximately twelve hundred people are included in these classifications.

TABLE X
PER CAPITA INCOME OF EMPLOYEES BY INDUSTRIAL
DIVISION, 1937*

Classifications of Services	Income
Mining—Total	\$1,277
Anthracite	1,505
Bituminous	1,160
Metal	1,437
Non-metal	1,209
Oil and gas	1,585
Manufacturing—Total	1,385
Food and tobacco	1,275
Paper, printing, and publishing	1,650
Textiles and leather	988
Construction materials and furniture	1,151
Chemicals and petroleum refining	1,529
Metal and metal products	1,601
Miscellaneous and rubber	1,422
Central administrative offices	2,598
Contract construction—Total	1,529
Transportation—Total	1,605
Steam railroads, Pullman, and express	1,772
Water transportation	1,785
Motor transportation and public warehouses	1,157
Street railways	1,648
Air transportation	2,150
Pipe lines	1,855
Electric light and power, and manufactured gas—Total	1,505
Electric light and power	1,477
Manufactured gas	1,602
Communication—Total	1,552
Telephone	1,616
Telegraph	1,188
Trade—Total	1,580
Retail trade	1,206
Wholesale trade	1,778
Finance—Total	1,792
Banking	1,954
Insurance	1,746
Real estate	1,656

TABLE XI
AVERAGE ANNUAL EARN-
INGS IN SELECTED OCCUPA-
TIONS IN THE UNITED
STATES, 1920-1936*

Selected Occupations	Average Annual Earn- ings Over the Period of Years
Medicine	\$4,850
Law	4,750
Engineering	4,410
Dentistry	4,170
Architecture	3,820
College teaching	3,050
Journalism	2,120
Library work	2,020
Ministry	1,980
Social work	1,650
Skilled trades	1,450
Public-school teaching	1,550
Nursing	1,510
Unskilled labor	795
Average of all people gainfully employed	1,550

*Selected from report by Harold F. Clark, *Life Earnings in Selected Occupations in the United States*, (Harper and Brothers, 1937). All figures reported here except the last are from p. 5, and the last is from p. 3.

parison and other comparisons of teachers' salaries with those of other public employees and other workers are shown in Table XII.

Most of the salary data in Table XII are for about the year of 1937. Therefore, the table begins with teachers' salaries for the school year of 1936-1937. The date of each item of data appears with the item. Some of the figures are medians and some means. In each instance where the type of measure of central tendency is known the same is indicated in the table.

Data such as those in this report in its summarizing table might be depressing to one who has a blunt sense of humor. Some one is needed to add a touch of humor to such a scrid report. If the contributor of mirth does so without trying to do so and without realizing that he is doing so, the force and effect of the humor is more impressive. Fortunately, we have the unwitting jester. He steps forward unconsciously in

Government—Total (excluding work relief)	1,457
Federal	1,595
State	1,278
City	1,581
County, township, and minor units	1,526
Public education	1,272
Service—Total	961
Professional service	1,059
Personal service	1,048
Recreation and amusement	1,775
Domestic service	658
Business service	1,747
Miscellaneous service	1,237
Miscellaneous—Total	1,511
Total	1,516

*Robert R. Nathan, *Income in the United States, 1929-57*, p. 58, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, November, 1958. Mr. Nathan does not state whether the figures in his report are medians or means.

TABLE XII
SUMMARIZING TABLE OF AVERAGE OR MEDIAN
ANNUAL SALARIES

Classification	Salary
Average salary of all teachers in United States, 1956-1957	\$1,520
Median salary of all teachers in Indiana, 1956-1957	1,175
Median salary of rural elementary teachers in Indiana, 1959-1940	921
Median salary of rural elementary teachers in median Indiana county, 1959-1940	909
Median salary of urban elementary teachers in Indiana, 1959-1940	1,629
Median salary of urban elementary teachers in median Indiana city, 1959-1940	1,100
Median salary of rural high-school teachers in Indiana, 1959-1940	1,177
Median salary of rural high-school teachers in median Indiana county, 1959-1940	1,118
Median salary of urban high-school teachers in Indiana, 1959-1940	1,756
Median salary of urban high-school teachers in median Indiana city, 1959-1940	1,570
Average salary of patrolmen in city police departments of United States, 1954	2,175
Average salary of privates in city fire departments of United States, 1954	1,975
Average salary of city mail delivery carriers in United States, 1940	2,081
Average salary of rural mail delivery carriers in United States, 1940	2,052
Salary of patrolmen of Indiana State Police after second year, 1959	1,620
Salary of garage foremen and mechanics, Indiana State Highway Commission, 1959	
Urban	1,620
Rural	1,512
Salary of truck drivers, Indiana State Highway Commission, 1959	
Urban	1,296
Rural	1,080
Salary of common laborers, Indiana State Highway Commission, 1959	
Urban	1,188
Rural	972
Median of minimum salaries for Class A state officials and employees of Indiana (not on a merit basis), 1959	1,580
Median salaries in the Department of Public Welfare and the Unemployment Compensation Division of the Department of Treasury of Indiana (on a merit basis), 1959	
With qualifications higher than teachers'	2,670
With qualifications about the same as teachers'	2,670
With qualifications lower than teachers'	1,725

(Continued on Page 19)

the person of James Frederick Rogers. After citing some medians of salaries of school janitors, some of which were higher than the median salaries of elementary teachers in the same schools where the janitors worked, and all of which were higher than the median for rural elementary teachers of Indiana, Mr. Rogers emphatically declared, "A school could hardly expect first-class service from a janitor paid so little as some of these figures indicate."¹⁰ Will Rogers, in his conscious efforts toward subtle humor could hardly have done better than did James Frederick. What is the moral for public-school teachers?

¹⁰James Frederick Rogers, *The School Custodian*, United States Office of Education *Bulletin*, 1958, No. 2, p. 59. The more complete data from which Mr. Rogers quoted originally appeared in *Research Bulletin* of the National Education Association, Vol. XV, No. 2, March, 1957.

A Study of Discrepancies between Intelligence Test Scores and Scholarship Indexes

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Since the fall quarter of 1922 it has been the practice at Indiana State Teachers College to give the incoming freshmen an intelligence test. During these years thousands of scores have been collected and used in many valuable researches. Group prediction has been fairly satisfactory, but the intelligence test has proved disappointing when used in individual diagnosis and prediction of success in future college work.

It is not the purpose of this study to test the validity of either the intelligence test or the instructors' grades which determine the scholarship index but merely to discover, if possible, other causes of the discrepancies between intelligence test scores and measures of college achievement. The material used was obtained from the records of the entire junior and senior classes during the year 1938-39 and from individual data secured by interview and by questionnaire from selected groups in those classes. For convenience, percentile ranks were used for both intelligence and achievement measures. Inasmuch as scholarship indexes in the later years of college are earned by competition with those who have remained in college, it is hardly fair to compare these with intelligence percentile ranks earned by competition with freshmen only. For this reason new intelligence percentiles were computed from the original raw scores on the intelligence test. There were 197 juniors and 172 seniors or a total of 369 in the group studied. Of these 40.4 per cent were men and 59.6 per cent were women.

Table I shows the correlations obtained between intelligence scores

and scholarship indexes. These are slightly higher than is usually obtained between these measures on the college level. The women show somewhat higher correlation between ability and achievement than do the men. At best the results are far from satisfactory and it is with some of the causes of this low correlation that this study is concerned.

TABLE I
CORRELATIONS BETWEEN
INTELLIGENCE AND
ACHIEVEMENT

Groups	Correlations
Men	.515 \pm .041
Women	.554 \pm .052
Entire group	.526 \pm .025

The percentiles earned in the two measures can also be compared directly. Table II shows the median deviation of scholarship percentiles from intelligence percentiles for certain groups. The best record was made by the specials with a median deviation of two percentile points above the intelligence scores. The poorest record was made by the four-year elementary group with a median deviation of six percentile points below the intelligence scores.

TABLE II
THE MEDIAN DEVIATION OF
SCHOLARSHIP PERCENTILES
FROM INTELLIGENCE PER-
CENTILES IN RANK ORDER

Groups	Median deviations
Special four year	+2
Seniors	0
All women	-1
Regular four year	-4
All men	-5
Juniors	-5.7
Four-year elementary	-0

In order to obtain more detailed information from those students who were causing the unsatisfactory relationship between intelligence and achievement, two groups at the extremes were selected for further study. It was thought that the selection of those with extreme differences between their measures of intelligence and achievement would serve two purposes: (1) it would minimize the inaccuracies known to exist in such measures; and (2) it would tend to locate some factors that might pass unnoticed in a study of groups with only slight differences. A difference of thirty points was arbitrarily chosen for the selection of these extreme groups. Group A was composed of forty-one students who were thirty or more percentile points higher in scholarship than in intelligence. Group B was composed of sixty-two students who were thirty or more percentile points lower in scholarship than in intelligence.

Table III gives basic data regarding these groups. It will first be noted that Group B which is low in achievement is 50 per cent larger than Group A. In performance Group A is just about as far above its intelligence rating as Group B is below. The proportion of men to women in Group A is about the same as in the entire senior college but in Group B the men furnished many more than their share with low achievement percentiles. The juniors furnished their proportionate share of Group A but many more than their share of Group B.

Table IV shows in detail the responses made by the two groups to the questions submitted to them. The co-operation of the two groups in this enterprise was exceptional, every individual furnishing the data called for. The particular questions used were selected with the hope that some clues might be found which on further study might lead to the real causes of the discrepancies between measures of ability and measures of achievement in college work. An attempt was made to gather opinions and attitudes as well as factual data.

TABLE III
BASIC DATA OF THE TWO GROUPS STUDIED

	Group A	Group B
Number in each group	41	62
Mean scholarship percentile	71.4	19
Mean intelligence percentile	24	64.66
Deviation of scholarship from intelligence	47.4	-45.66
Per cent men	41.5	58
Per cent women	58.5	42
Per cent juniors	51	63
Per cent seniors	49	37
Per cent specials	61	44
Per cent regular four year	37	42
Per cent elementary four year	2	14

Answers to Question 1 reveal that fewer in Group B have had instruction in how to study and from answers to Question 2 it is learned that they felt the need for it more than do those in Group A. This may have some significance although most of the students in both groups felt the need for this instruction. Answers to Question 3 would suggest that as far as these groups are concerned good health is the rule. Outside work is sometimes mentioned as a cause of poor college work but it will be noted that a greater percentage of Group A are working than of Group B so this could hardly explain the great differences in achievement.

It is commonly rumored about the college that freshmen are advised not to stand too well on the intelligence test. What effect, if any, does this have on their scores? Answers to Question 5 and Question 6 may throw some light on this. About one-fifth of each group were advised to do poorly on the test. About two-thirds of Group A admitted that they did not do their best and this might help to explain their low percentile score of twenty-four. Since these students have proved their ability by earning a scholarship percentile of 71.4 it is reasonable to conclude that the intelligence test scores do not represent their true abilities. More than one-third of Group B said that they did not do their best and in spite of this their intelligence percentile of 64.66 is well above the average for the entire senior college. Which of these groups studied has the higher ability or have they equal ability? No definite answer can be found un-

til students are convinced that it is to their own best interest to do as well as possible on the intelligence test. Only thus can the obtained measures even approximate the truth.

Answers to Question 8 indicated that both groups understand fairly well the relation that exists between

the two measures but Group A had a very poor opinion of the intelligence test as is indicated by the answers to Question 7. This might account for the lack of effort when taking the test.

Question 9 raised the problem of the validity of grades and, as might be expected, those who earned good grades think well of them while those who received poor grades think poorly of them. Group B apparently thought poorly of both intelligence tests and grades in spite of the very creditable mean intelligence score.

As for the standards set up by the school in terms of scholarship indexes both groups considered them satisfactory or even too low. Only 2 per cent of Group B considered them too high.

TABLE IV
RESPONSES OF THE GROUPS TO CERTAIN QUESTIONS

Question	Group A		Group B	
	Per cent Yes	Per cent No	Per cent Yes	Per cent No
1. Have you had instruction in how to study?	50	50	39	61
2. Have you felt the need for such instruction?	82	18	92	8
3. Do you have good health?	100	..	97	3
4. Do you do outside work to help pay expenses?	66	34	52	48
5. Did you do your best on the intelligence test?	36	64	66	34
6. Were you advised not to stand high?	22	78	25	77
7. Did the test measure your ability in college work?	3	97	36	64
8. Do you think that your college work has been better than the test predicted?	97	3	25	75
9. Is the scholarship index a fairly accurate measure of your work?	68	32	39	61
10. Is an index of 45 as a requirement for Senior College:				
Too low?	61	..	28	..
Satisfactory?	39	..	70	..
Too high?	..	..	2	..
11. Which do you consider of greater value to you:				
Regular class work?	77	..	74	..
Extra-class activities?	23	..	26	..
12. Do you consider yourself well adjusted?	82	18	75	25
13. If not, has this hindered your college work?	50	50	70	30
14. Have you definitely decided to be a teacher?	71	29	77	23
15. Do you expect to do graduate work?	88	12	85	15

It is often claimed that extra-class activities account for some of the low grades. Whether or not this is true, both groups are practically of the same judgment that regular class work is more valuable than the extra-class activities.

What are these students planning for the future? About three-fourths of each group have definitely decided to teach and more than four-fifths of them expect to do graduate work. Will the students in Group B in the lowest fifth of the senior college be able to do the superior work expected of graduate students?

The great majority of students in these groups considered themselves well adjusted but Group B considered maladjustment a greater handicap than did those in Group A.

Two important findings cannot well be listed in Table IV. The students were asked to state the average amount of time per day spent on their assignments. Group A reported four hours and sixteen minutes, while Group B reported three hours and forty minutes. This difference of thirty-six minutes per day in favor of Group A represents sixteen per cent more time spent in study than Group B and might be significant.

Group A reported belonging to an average of three and one-third organizations, Group B only two. Merely belonging in itself gives no clue as to the amount of time or interest involved but it might safely be assumed that Group A was more active in this way even while maintaining higher scholarship.

An effort was made also to discover what influences these students considered most helpful to them in their college work. Table V lists those mentioned in rank order, those at the head of the list being mentioned most frequently. In Tables V and VI items beyond the fifth were mentioned but once or twice and therefore have little importance for the group.

Table VI lists in the same way influences that have hindered these students most in their college work. There might be some significance in the fact that Group B lists towards

TABLE V
MOST HELPFUL INFLUENCES IN COLLEGE WORK

Group A	Group B
Interest in the subject	Teachers
Ambition	Own family
Success	Desire for an education
Teachers	Interest in subject
Own family	Success
Home study	Need for self-support
Determination	Friends
Friends	Work between high school and college
Need for self-support	

TABLE VI
MOST HARMFUL INFLUENCES IN COLLEGE WORK

Group A	Group B
Lack of time	Outside work
Outside work	Social life
Lack of funds	Poor study habits
Required courses	Lack of funds
Poor background	Required courses
Worry over grades	Long or poor assignments
Poor study habits	Home influence
Lack of self-confidence	Communting
Lack of time for enjoyment	Lack of self-confidence
Feeling of inferiority	Laziness
Living conditions	Indecision as to vocation

the top "Social life" and "Poor study habits."

Both of these tables are included because of their interest and information rather than because of any distinctive difference between the two groups.

SUMMARY AND RECOMMENDATIONS

The following conclusions are justified by the study:

1. In intelligence and scholarship the senior college students of this study cover a wide range.
2. Twenty-eight per cent of the entire group are thirty or more points apart in intelligence and achievement with a mean divergence of 46.5 points.
3. The B Group with low achievement is 50 per cent larger than the corresponding A Group with high achievement.
4. Men students are found in the B Group in much greater numbers than warranted by the proportion of men to women in the entire senior college.
5. Both groups feel the need for instruction in the art of studying.
6. A greater percentage of the A Group do outside work.

7. Many students in both groups admit that they did not put forth their best effort on the intelligence test.

8. These students evidently have a poor opinion of the intelligence test as a measure of their ability.

9. Approximately two-thirds of Group A think well of the scholarship index while nearly two-thirds of Group B think ill of it.

10. Students in both groups think the present scholarship standards are either satisfactory or too low.

11. Regular class work is considered by both groups as decidedly more valuable than extra-class activities.

12. The great majority of both groups expects to teach.

13. More than 80 per cent of both groups expect to do graduate work.

14. The great majority of both groups consider themselves well adjusted.

15. Group A belongs to more organizations and studies more hours per day than Group B.

The following recommendations seem pertinent:

(Continued on Page 19)

Outline for a Course in Applied Piano, Harmony, Keyboard Harmony, History of Music, and Music Appreciation for High School Credit

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Indiana State Teachers College

PLAN OF THE COURSE

This course in high school music is planned to give high school students a broad music background in conjunction with their private instrumental study corresponding to that given in the regular music course of study as outlined and published by the state of Indiana. Department of Public Instruction, Bulletin No. 100-H. Classification of pupils, examinations, and reports is carefully made, and the fitness of the work done for high school credit is carefully checked so that a high standard of scholarship is maintained in every way equal to similar work in high schools of the state.

All examinations and recommendations for credit are vested in an examining board appointed by the superintendent and consisting of members of the high school faculty and the teachers with whom the pupils have studied or will study. The board will hear each pupil play the piano in a preliminary audition (unless he is a beginner) and also in a final examination at the end of each semester, a comparison of the two performances made by the board's best group judgment determining the amount of progress and whether it is sufficient for the high school credit desired. If it is not, the board may require the pupil to continue piano study until a proper amount of progress has been made for the credit.

Reports of the individual pupil's progress will be made to the high school faculty every six weeks by the pupil's own teacher. Grades in music will be recorded on the regular re-

port cards the same as for any high school subject.

One hour of practice per day, five hours per week, will be required of each pupil. The amount of practicing done each day shall be recorded on a blank (provided for the purpose) by the pupil and attested by the parent and returned to the teacher by the pupil at the lesson hour or once each week.

Only applied piano study has been listed as that was the only instrument represented at the conference between the teachers of the city of Washington, Indiana, and the writer. Other instruments and voice can be included as opportunity offers.

The examining board will give the written examinations at the end of each semester in harmony and history of music and appreciation in the same manner and on the same basis as in other high school subjects, the results of the examination to determine the fitness of the work done by the pupil for receiving the desired amount of credit.

APPLIED PIANO STUDY

The study of classical and modern piano literature, including the necessary technical exercises, constitutes this work. The course in applied piano study has, for convenience, been divided into groups. A preliminary audition before the examining board will determine the pupil's classification within these groups, and a final examination will determine the amount of progress made by the pupil and whether such progress has been sufficient for the high school credit desired.

OUTLINE OF APPLIED PIANO STUDY; SUGGESTIVE MATERIALS

I. Beginning Group A. Essential rudiments of piano playing. Williams, Book I; Williams, First Year at the Piano; John Thompson, Book I or any of the standard piano methods. Include the first six major scales.

II. Beginning Group B. The second books of the above-mentioned piano series; simple scales and chord exercises; Etudes, Streabog; Masters of Melody, Emerson; Little Classics, Hughes.

III. Elementary Group A. Complete the major scales; Czerny (either Germer's or Liebling's editions), Volume I; Little Classics, Hughes; Etudes, Op. 100, Bergmuller; Preludes, Concone; Album for the Young, Tchaikovsky; Sonatinas, Kuhlau.

IV. Elementary Group B. Complete major and minor scales, arpeggios; Clementi, Sonatinas; Studies, Op. 47, Heller; Master Series for the Young, Hughes; Children's Pieces, Mendelssohn; Album for the Young, Schumann; Lyrical Pieces, Op. 12, Grieg.

V. Intermediate Group A. Hanon, The Virtuoso Pianist, Part I; Studies, Op. 46, Heller; easier Sonatas, Haydn and Mozart; selected pieces.

VI. Intermediate Group B. Hanon; Studies, Op. 45, Heller; Studies, 299, Czerny; Octave Studies, F. S. Evans; Sonatas, Haydn and Mozart; Little Preludes and Fugues, Bach; Songs Without Words, Mendelssohn; selected pieces.

VII. Intermediate Group C. Scales and arpeggios; Czerny; Hanon; Etudes, Moszkowski; Bach, Two-Part Inventions; Sonatas, Mozart and Haydn; Beethoven, Op. 49; Lyrical Pieces, Grieg; Songs Without Words, Mendelssohn; Beethoven, German Dances.

VIII. Advanced Group A. Scales and arpeggios; Hanon; Bach, Three-Part Inventions, French Suites; Etudes, Cramer; Beethoven, Sonatas, Op. 14, 79, 2 (Nos. 1 and 2), 7. Easier pieces of Chopin, Schumann, Schubert, and modern composers.

IX. Advanced Group B. Scales,

parallel and contrary motion, thirds and sixths; Octave Studies, Kullak; Clementi, *Gradus ad Parnassum* (Tausig, ed.); Bach, *Well Tempered Clavichord*, *English Suites*; Beethoven, *Sonatas*; Chopin, *Nocturnes*, *Preludes*; Schumann, *Papillons*, *Noveletten*, *Arabesken*; easier works of Brahms, Debussy, Liszt.

X. Advanced Group C. Studies: Clementi, *Gradus*; Chopin, *Henselt*, *Liszt*, *Alkan*, *Scriabin*; Bach, *Well Tempered Clavichord*, *Partitas*; Beethoven, *Sonatas*; Chopin, *Ballades*, *Scherzos*; Schumann, *Kreisleriana*; Brahms, Op. 10, 76, 78, 116, 119; compositions of Liszt, Debussy, Ravel, etc.

The above materials are suggestive. Advancement through the groups may be made as rapidly as the pupil can do so, according to the teacher's judgment.

HARMONY

A comprehensive study of the subject as outlined in the state course of music study and referred to below. Suggestive texts: *High School Theory and Harmony*, Tilson; *Elementary Harmony*, Orem; *Elementary Harmony*, York; *Modern Harmony*, Foote and Spalding; and others. *Elementary Harmony* by Bussler contains excellent exercises and will serve as a source of additional exercises as needed. It is not recommended as a text for high school pupils.

Near the close of each semester a written examination in harmony will be given by the examining board to determine the amount of work done by each pupil and his fitness to receive high school credit for the same. Other more frequent examinations may be given by the teacher as desired.

The teacher is especially referred to pages 27-30 of the Indiana State Course of Study in Music.

KEYBOARD HARMONY

This is a study in playing exercises at the keyboard and aural exercises consisting of the various intervals, triads, chords, and their inversions as studied in the course in written harmony and should accompany it whenever possible. The best

texts are *Keyboard Harmony* by Wedge and *Aural Harmony* by Robinson. These books, together with *Harmonic Dictation* by White and Jones, make an excellent guide for presentation of the material and they supply copious exercises.

The combination of written and keyboard harmony, as above outlined, with one recitation per week, if thoroughly done, could well take up two years, planning to take through the dominant seventh the first year.

HISTORY OF MUSIC

The purpose of the study of history of music is to give the pupil a broad and cultural background for the appreciation of modern music through the study of the various movements in the art which have given rise to its present status. At the present there is no entirely satisfactory text for high school use, but one of the best is McGehee's *People and Music* which has a splendid method of presentation as it correlates music with other arts, including general English literature. It is somewhat elementary for high school pupils and will need considerable supplementary reading; however, for this type of course where it is assumed that one recitation per week will be the rule, it may prove entirely satisfactory. Bauer and Peyser's two books, *How Music Grew* and *Music Through the Ages*, have a very attractive style which should prove excellent for high school readers. Some choice of reading from these books will have to be made, and there are few errors. Other texts by Baltzell, Pratt, and Finney may be used. There is an excellent outline, with splendid illustrations, in Faulkner's *What We Hear in Music*.

MUSIC APPRECIATION

This study can be approached in three different ways:

(1) It can be taken as a part of the history of music study, in which case more time could be taken for listening to and getting acquainted with the music literature belonging to the different periods, taking about half of the usual course through Bach, Handel, Haydn, Mozart, and

Gluck, the first year, and the second year beginning with Beethoven and coming down to the present. McGehee is probably the best text for this.

(2) It can be taken separately from the study of history and given in historical sequence.

(3) It can begin with present day music and work backward (historically) to the simpler forms. If the pedagogical principle of proceeding from the known to the unknown is to be applied here, students will have to have an acquaintance with the best music that we hear now in concerts, by means of the radio, etc. If the teacher is absolutely sure of this latter point, then the study can proceed from the present backward, following the method of McKinney and Anderson in their *Music Appreciation*, which will serve as an excellent guide for the teacher as it contains many splendid examples and analyses and correlations with the other arts and literature. As a text for this course, Kinsella's *Music and Romance* is probably the best, although it cannot be followed as written, but assignments can be made from it following a fixed outline such as that in McGehee or McKinney and Anderson. The latter book is not recommended as a high school text.

The reader will do well to examine pages 36-38 of the Indiana State Course of Study in Music.

GENERAL OUTLINE

Since up to four units of music for high school credit can be earned in this course, the following outline by years is given.

Four-Year Course

First year. Applied piano, elementary harmony, and keyboard harmony.

Second year. Applied piano, elementary harmony, and keyboard harmony continued.

Third year. Applied piano and history of music.

Fourth year. Applied piano and music appreciation.

Three-Year Course

First Year. Applied piano, elementary harmony, and keyboard harmony. (Continued on Page 19)

TABLE XII—SUMMARIZING TABLE OF AVERAGES

(Continued from Page 13)

Per capita income of employees in mining in United States, 1937	1,277
Per capita income of employees in manufacturing in U. S., 1937	1,385
Per capita income of employees in contract construction in U. S., 1937	1,329
Per capita income of employees in transportation in United States, 1937	1,603
Per capita income of employees in electric light and power and in manufactured gas in United States, 1937	1,503
Per capita income of employees in communication in U. S., 1937	1,532
Per capita income of employees in trade in United States, 1937	1,580
Per capita income of employees in finance in United States, 1937	1,792
Per capita income of employees in federal government in United States, 1937	1,529
Per capita income of employees in state government in United States, 1937	1,278
Per capita income of employees in civil city government in United States, 1937	1,581
Per capita income of employees in civil county, township, and minor local government, 1937	1,526
Per capita income of employees in service occupations in U. S., 1937	961
Average annual earnings of physicians in United States, 1920-1936	4,850
Average annual earnings of lawyers in United States, 1920-1936	4,730
Average annual earnings of engineers in United States, 1920-1936	4,410
Average annual earnings of dentists in United States, 1920-1936	4,170
Average annual earnings of architects in United States, 1920-1936	3,820
Average annual earnings of journalists in United States, 1920-1936	2,120
Average annual earnings of library workers in United States, 1920-1936	2,020
Average annual earnings of ministers in United States, 1920-1936	1,980
Average annual earnings of social workers in United States, 1920-1936	1,680
Average annual earnings of skilled tradesmen in United States, 1920-1936	1,450
Average annual earnings of nurses in United States, 1920-1936	1,310
Average annual earnings of unskilled laborers in United States, 1920-1936	795
Average annual earnings of all people gainfully employed in U. S., 1937	1,550

OUTLINE FOR A COURSE

(Continued from Page 16)

Active steps should be taken to correct the notion that the intelligence test is of little importance and that nothing is ever done with the results. This needed change in attitude might be brought about as follows: (1) by giving the intelligence test score, the English test score, and the scholarship index definite weights in determining the student's eligibility to remain in the college after the first quarter; (2) by emphasizing the place held by the intelligence test score in the permanent record of the student and in transfers to other colleges; (3) by discussing with freshmen before they take the test the many uses made of the results; and (4) by showing how better measures of ability, interests and aptitudes, and scholastic achievement will enable the college to give more effective guidance.

A STUDY OF DISCREPANCIES

(Continued from Page 18)

board harmony.

Second year. Applied piano and either harmony (preferred) or history of music as elected by pupil.

Third year. Applied piano and either history of music or music appreciation as elected by pupil.

Two-Year Course

First year. Applied piano, elementary harmony, and keyboard harmony.

Second year. Applied piano and history of music or music appreciation as elected by pupil.

One-Year Course

Applied piano, elementary harmony, and keyboard harmony.

BIBLIOGRAPHY

Baltzell, Winton James. *A Complete History of Music for Schools,*

Clubs, and Private Reading. Philadelphia: Theodore Presser Company, 1931. 659 pp.

Bauer, Marion, and Ethel Peyser. *How Music Grew.* New York: G. P. Putnam's Sons, 1925. 602 pp.

—*Music through the Ages.* New York: G. P. Putnam's Sons, 1932. 572 pp.

Bussler, Ludwig. *Elementary Harmony.* New York: G. Schirmer, 1891. 227 pp.

Faulkner, Anne Shaw. *What We Hear in Music.* Camden, New Jersey: Victor Talking Machine Company, 1924. 451 pp.

Finney, Theodore Mitchell. *A History of Music.* New York: Harcourt, Brace and Company, 1935. 635 pp.

Foote, Arthur William, and Walter R. Spalding. *Modern Harmony in Its Theory and Practice.* Boston: A. P. Schmidt, 1905. 254 pp.

Indiana Department of Public Instruction. *Course of Study in Music, Grades One to Twelve.* Indianapolis: William B. Burford Company, 1932. 38 pp.

Kinscella, Hazel Gertrude. *Music and Romance for Youth.* Camden, New Jersey: RCA Victor Company, Inc., 1930. 422 pp.

McGehee, Thomasine C., *People and Music.* Boston: Allyn and Bacon, 1929. 372 pp.

McKinney, Howard Decker, and W. R. Anderson. *Discovering Music.* New York: American Book Company, 1934. 334 pp.

Orem, Preston Ware. *Harmony Book for Beginners.* Philadelphia: Theodore Presser Company, 1916. 144 pp.

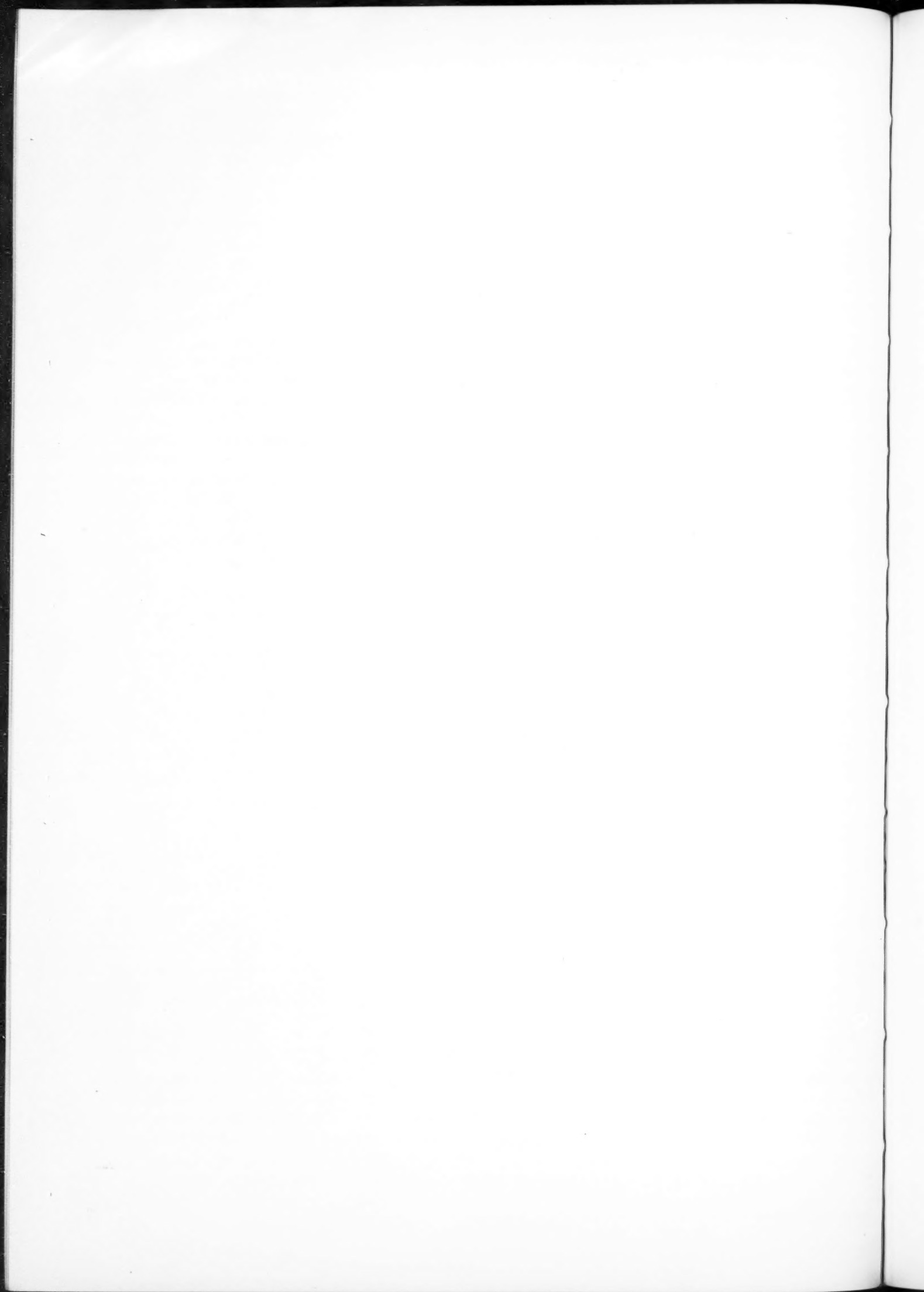
Pratt, Waldo Selden. *The History of Music.* New York: G. Schirmer, 1927. 734 pp.

Tilson, Lowell M. *High School Theory and Harmony.* Terre Haute, Indiana: Inland Publishing Company, 1926. 64 pp.

Wedge, George A., *Keyboard Harmony.* New York: G. Schirmer, 1924. 194 pp.

White, Bernice, and Vincent Jones. *Harmonic Dictation.* New York: American Book Company, 1932. 139 pp.

York, Francis. *Harmony Simplified.* Boston: Oliver Ditson Company, 1901. 154 pp.



A PHILOSOPHY OF PLACEMENT . . .

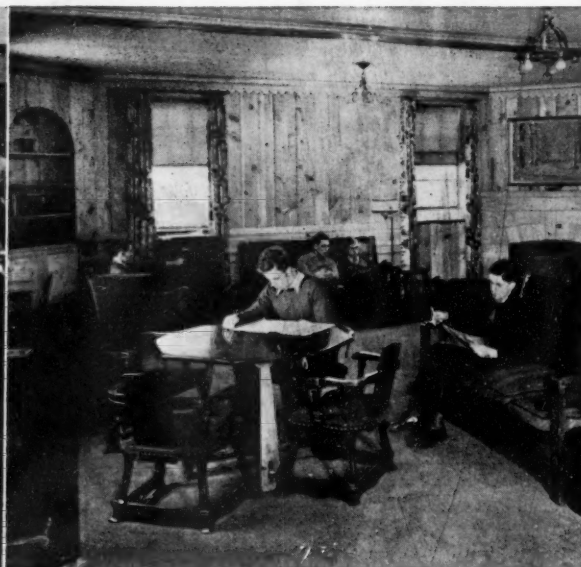
Historians of the future, who will look back upon our times with much more perspective than we possess, are almost certain to observe a prime characteristic of persons living in the middle of the Twentieth Century. They will see that we were extremely job-conscious. It was an era in which much was said about unemployment, about retirement to make way for younger persons, and about many men's jobs being their most precious economic possessions.

This tension over employment precipitates the Placement Bureau into the midst of the economic struggle. Many persons get the notion that a Placement Bureau achieves the ideal when it finds the greatest number of jobs for the greatest number of persons. Of course, that is one measuring stick of success, but there are others.

Placements which do not work out satisfactorily inflict a hardship and injustice on all concerned. Therefore, care must be exercised to suit the individual to the position. So the Placement Bureau at Indiana State Teachers College conceives of its function as threefold: (1) To help the graduate find a position in which he can succeed. (2) To serve the teaching profession generally by helping administrators find qualified persons they need. (3) To aid the orderly process of promotion by recommending in-service teachers.

For the Right Teacher for Your Vacancy, Write:

The Placement Bureau
INDIANA STATE TEACHERS COLLEGE
Terre Haute, Indiana



MODERN DORMITORIES AND THE STUDENT UNION BUILDING

College residence is not a casual matter. Thoughtful high school graduates contemplating college give careful consideration to the residence facilities which will be a home away from home during the greater part of four years.

Students at Indiana State Teachers College live in dormitories which are model campus residences, W. W. Parsons Hall for men and Women's Residence Hall. They are new structures combining beauty and good taste with practical utility. Students living in them have facilities for study, recreation, and dining in each building. The cost is \$90.00 covering room and board for each quarter of twelve weeks. Reservations may be made in advance by writing the dean of men or the dean of women.

Located between the men's and women's dormitories, a hundred yards from each, is the new Student Union Building, the center of student life on the campus and one of the outstanding buildings of its type in the nation. It contains an auditorium, swimming pool, ballroom, meeting rooms, and hotel facilities for visitors to the campus.

For Information Write:
DEPARTMENT OF PUBLIC RELATIONS
INDIANA STATE TEACHERS COLLEGE
TERRE HAUTE, INDIANA

